

FIG. 1
Prior Art

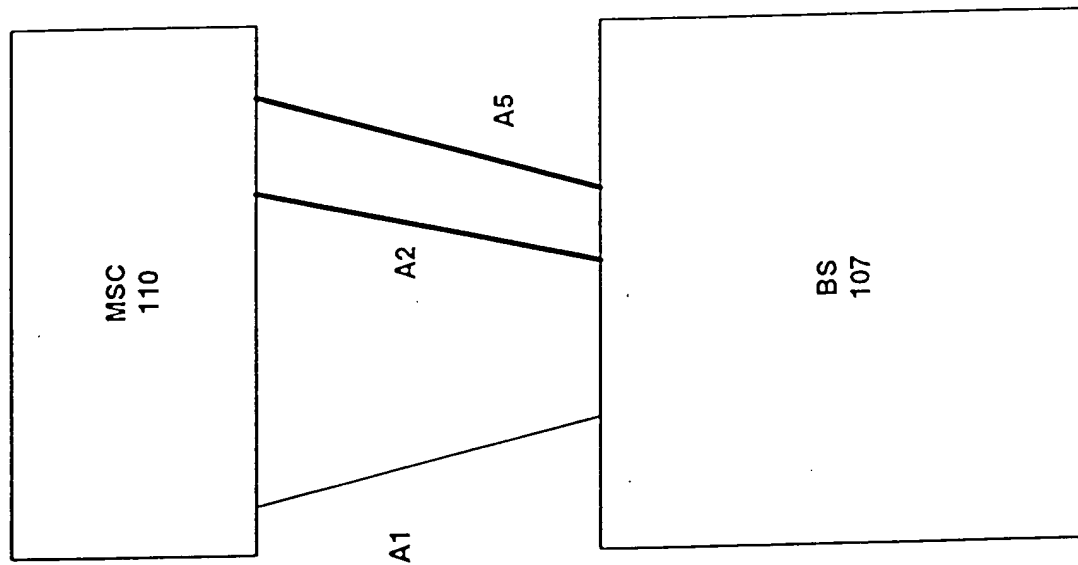


Fig. 2
Prior Art

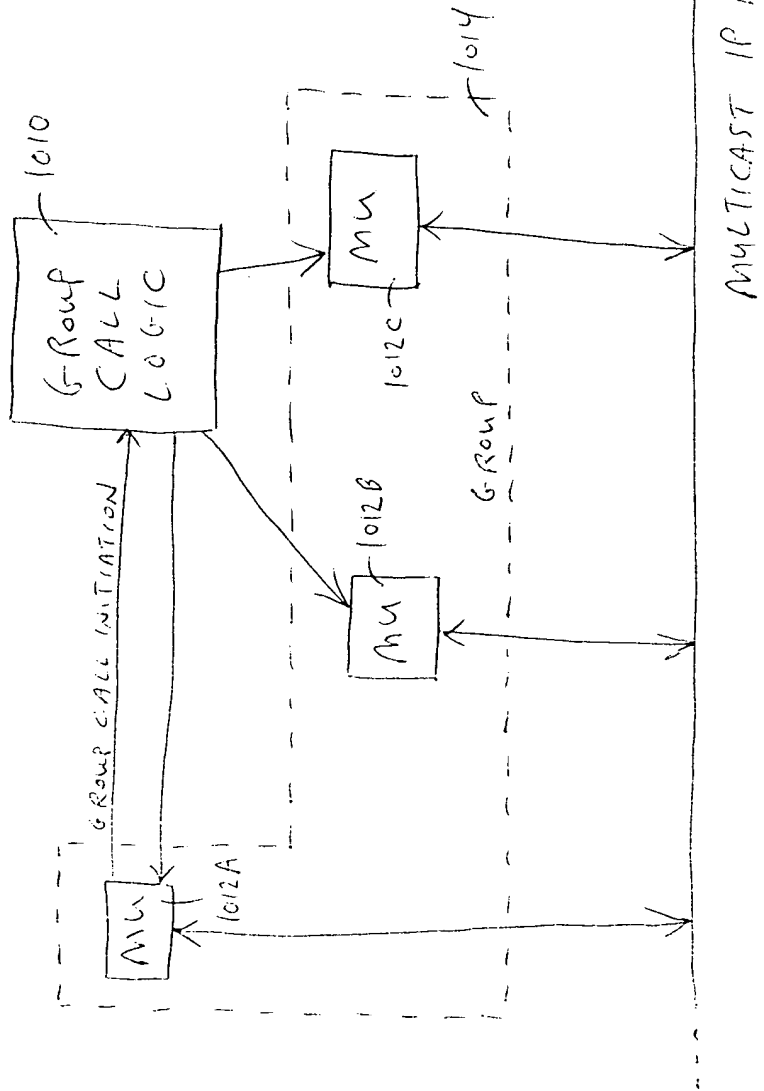


FIG. 3

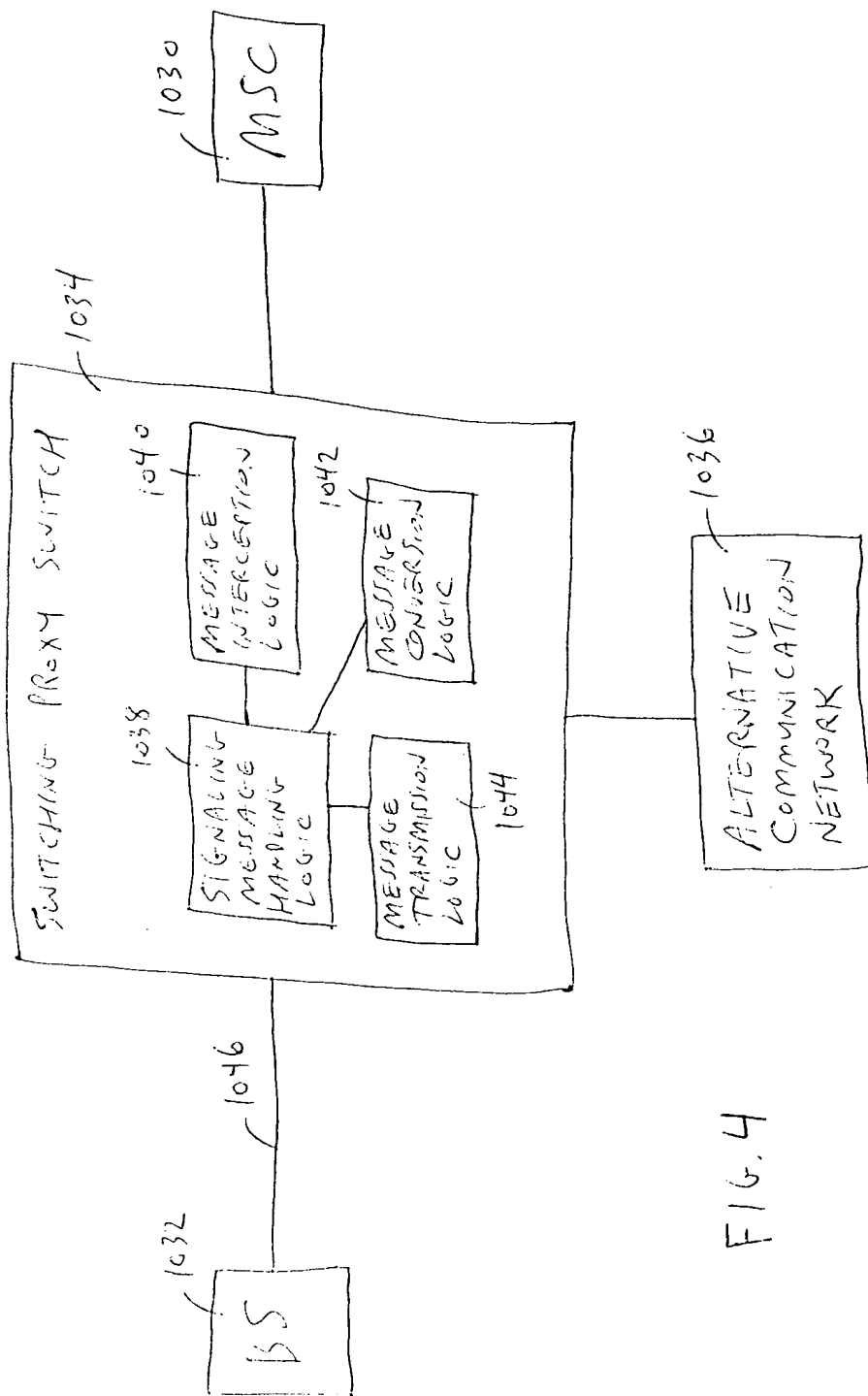


FIG. 4

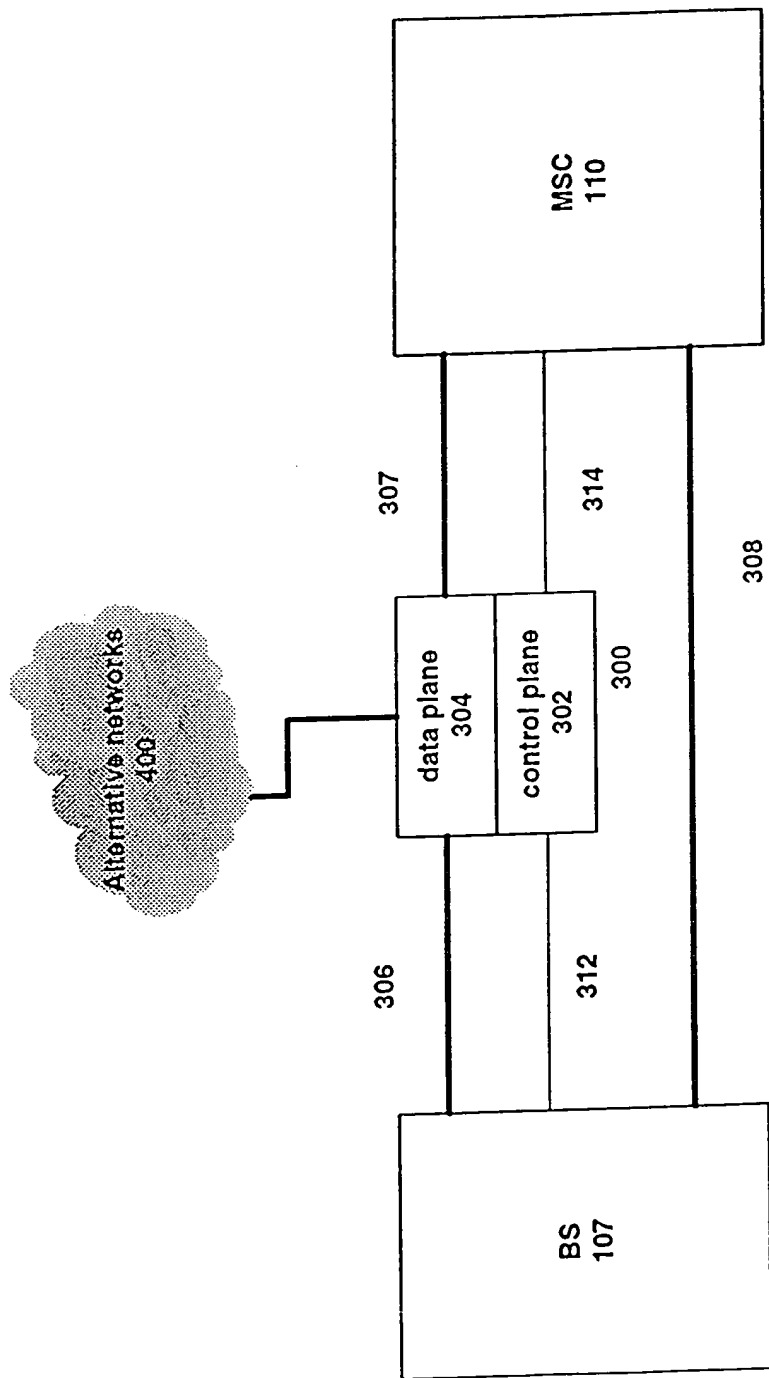


Fig. 5

FIG. 6

400

300

401

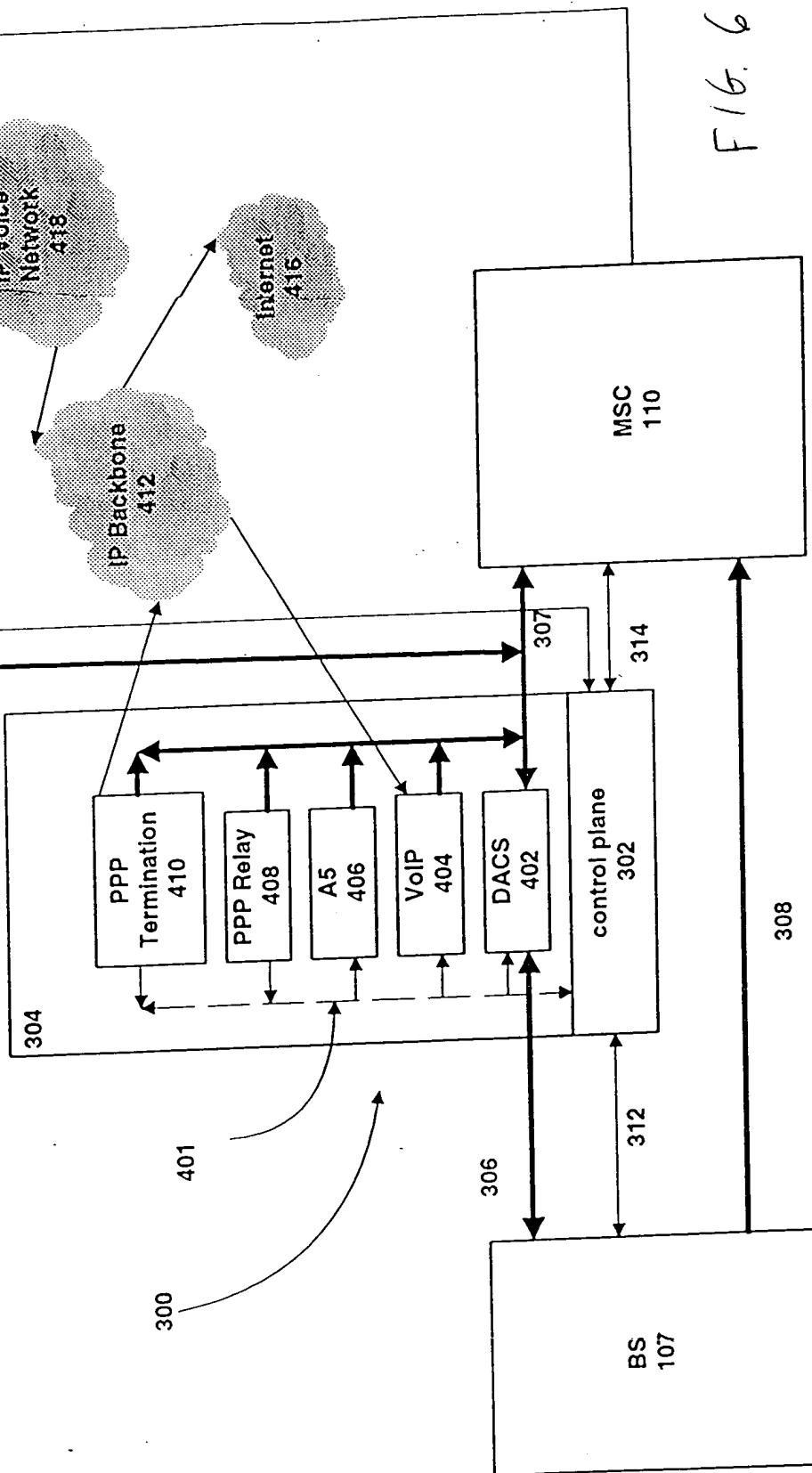


FIG. 6

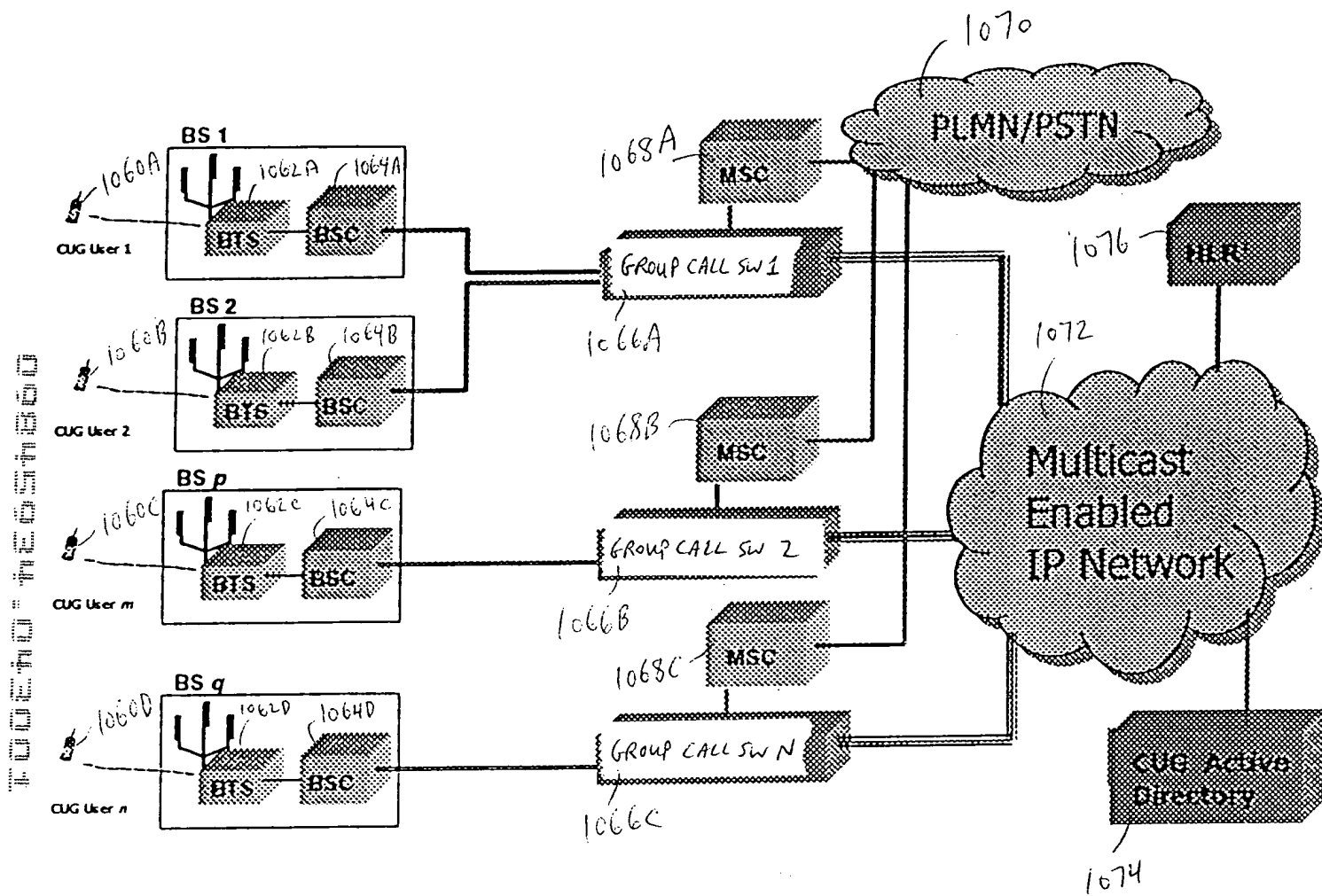


FIG. 7

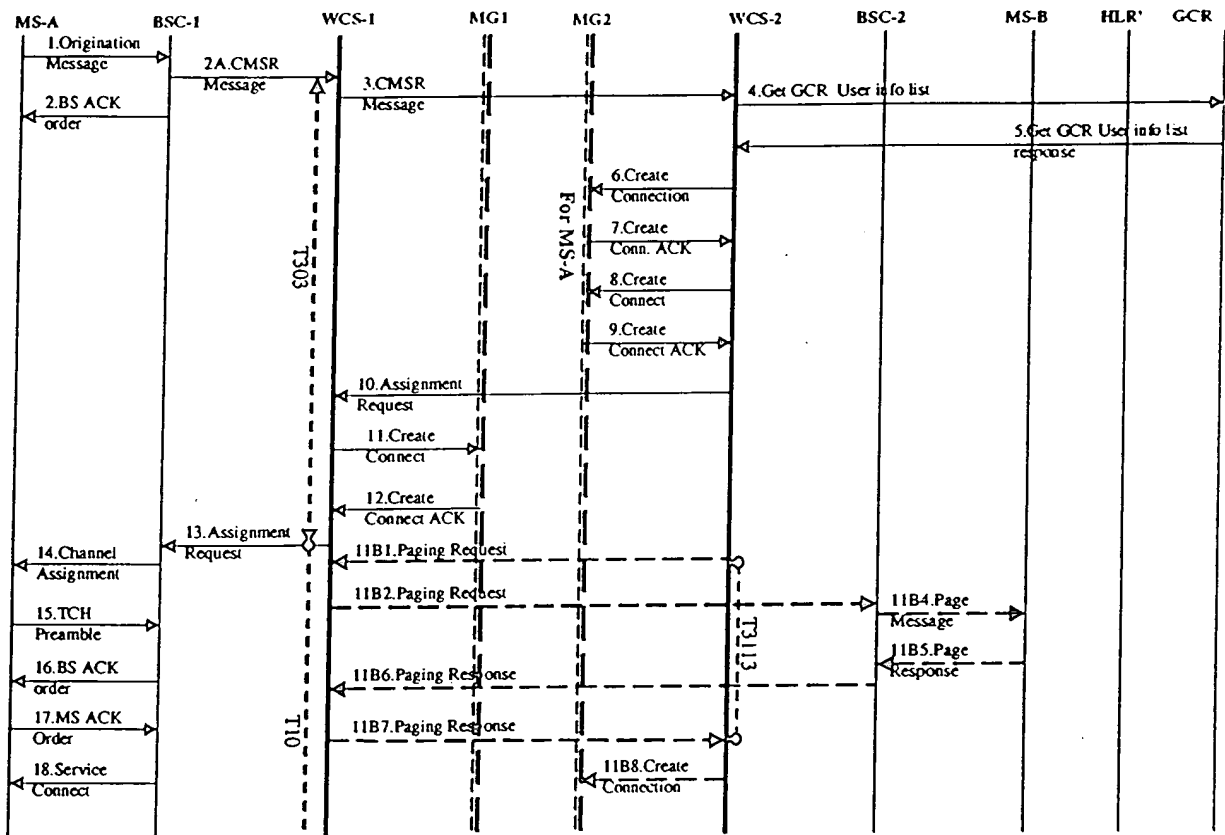


FIG. 8A

FIG. 8B

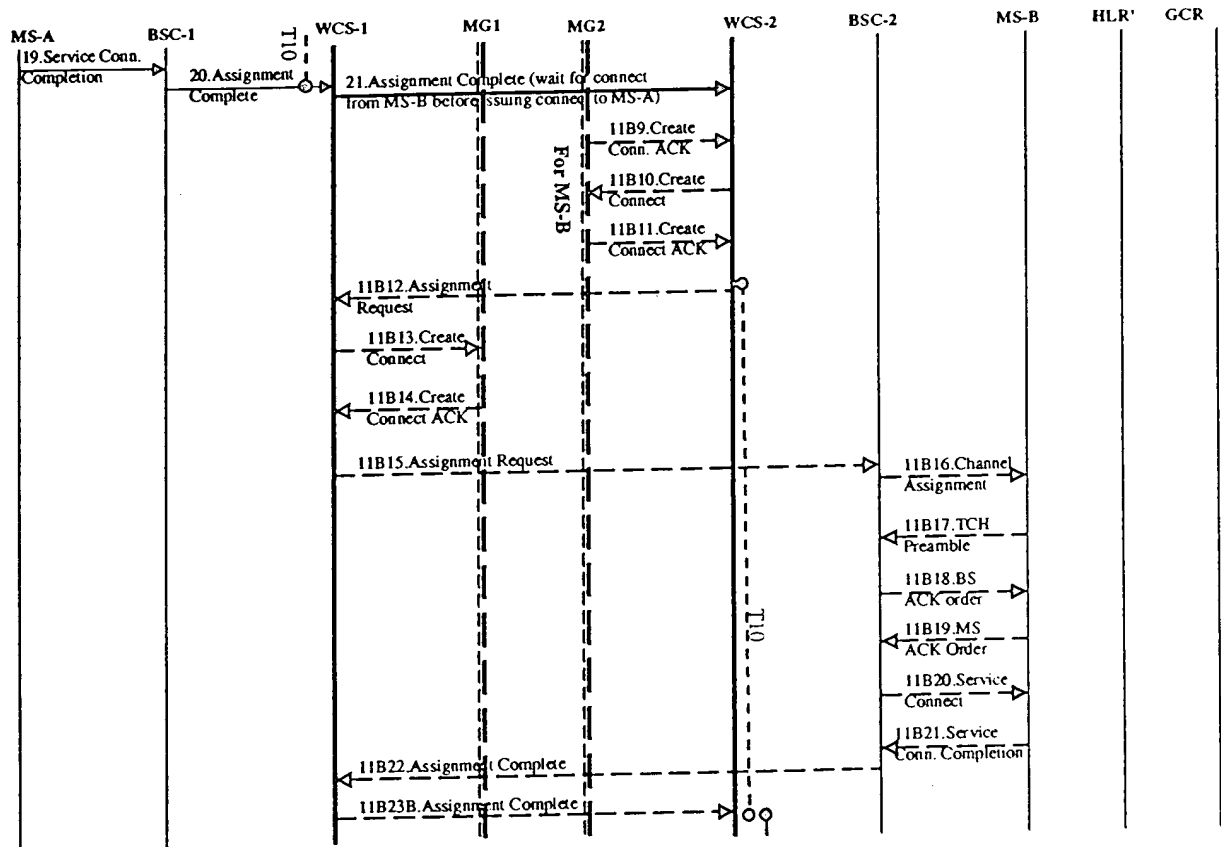


FIG. 8B

FIG. 8C

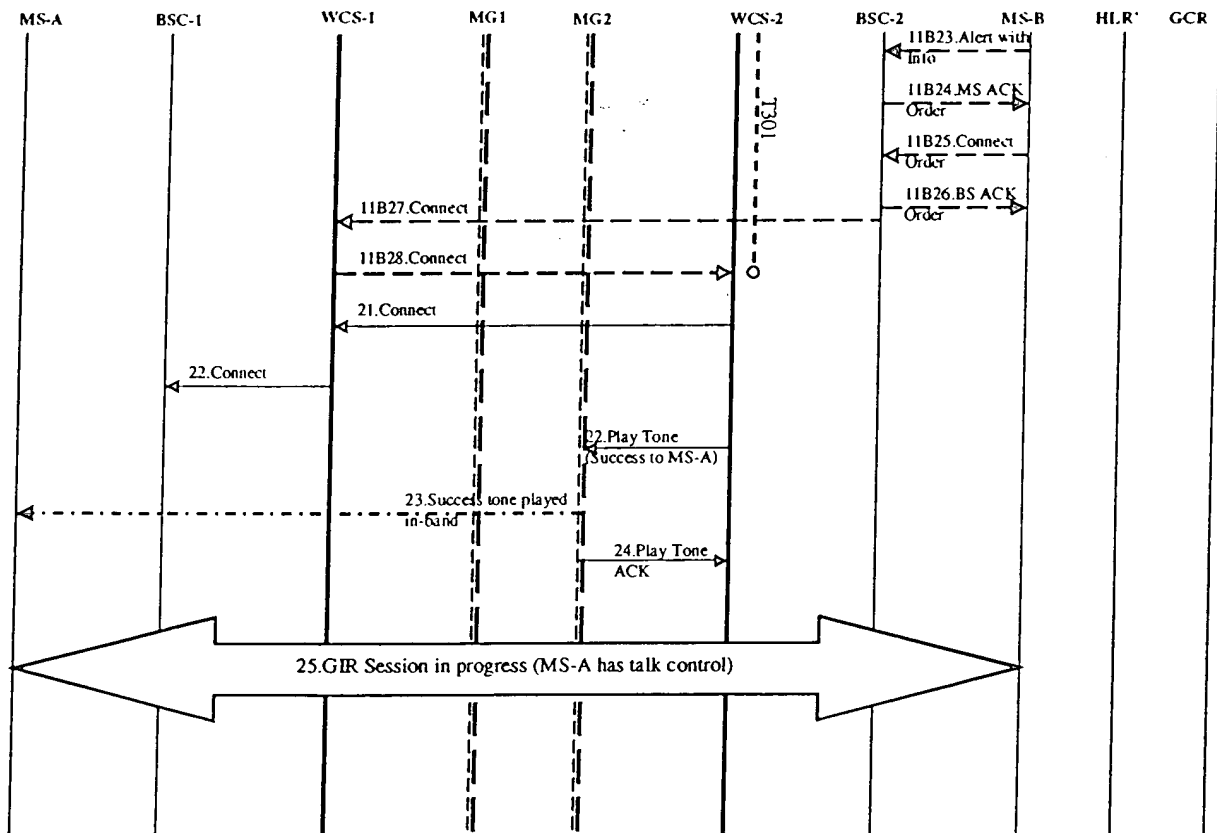


FIG. 8C

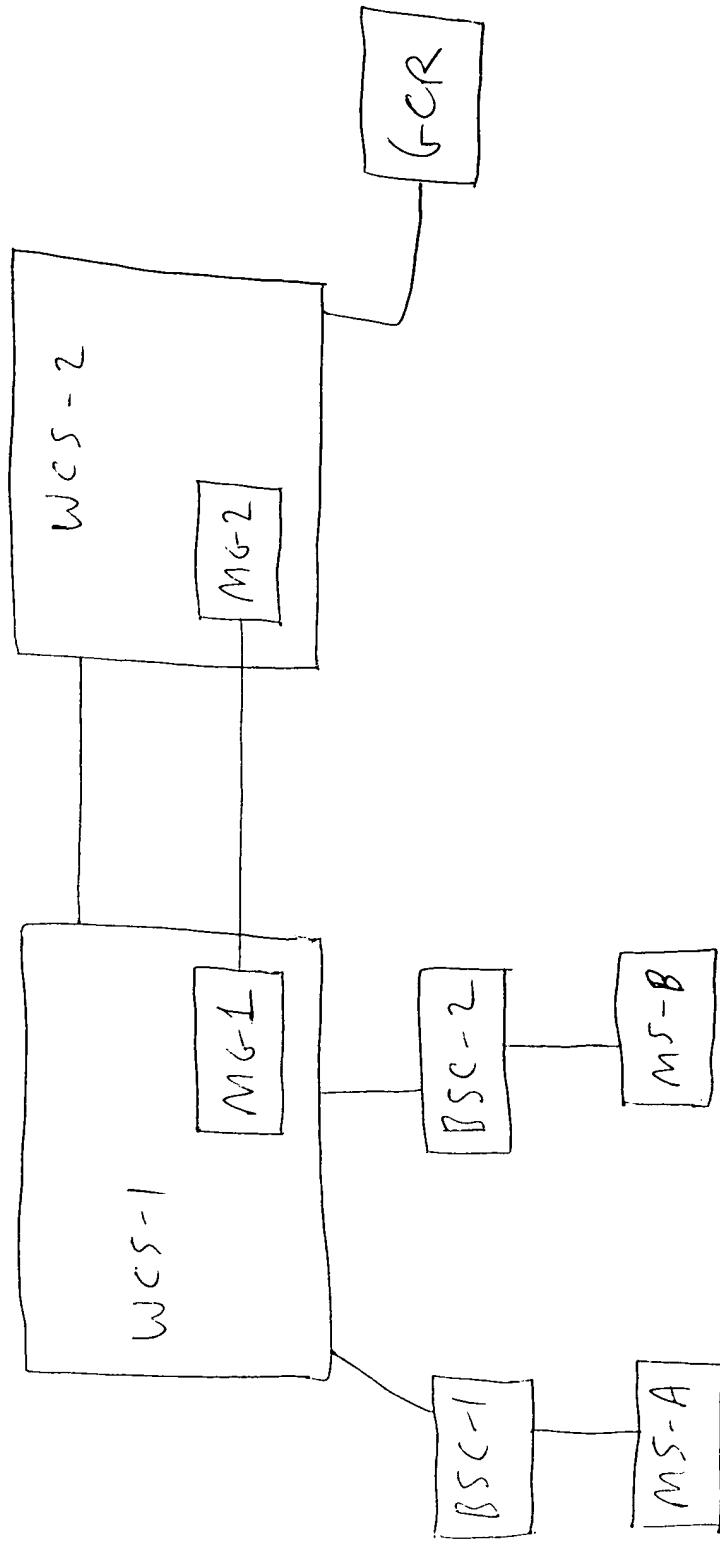


FIG. 9

WCS-1

WCS-2

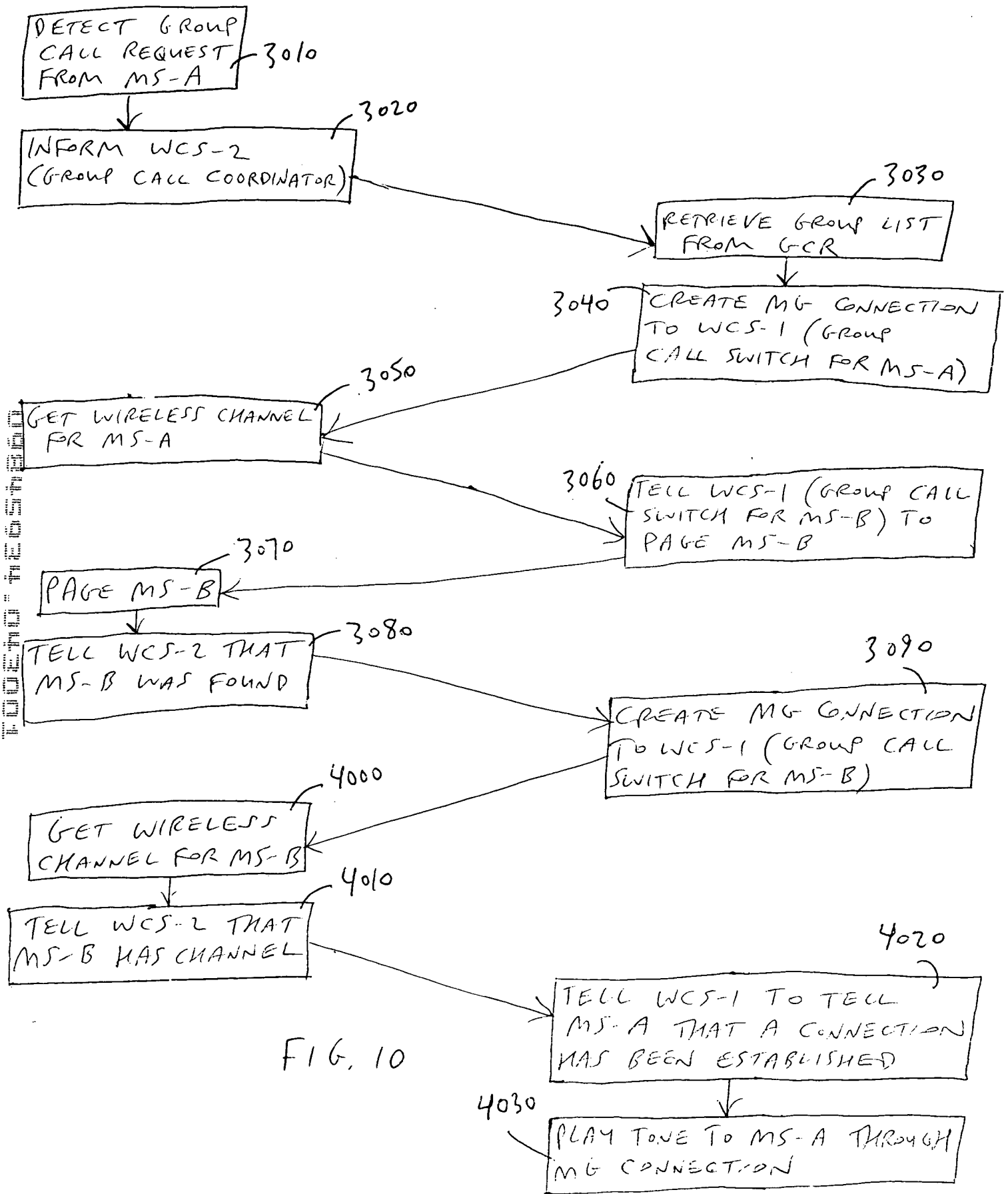


FIG. 10

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sequenceDiagram
    participant MS-1
    participant BSC-1
    participant WCS-1
    participant MG1
    participant MG2
    participant WCS-2
    participant BSC-2
    participant MS-2
    participant HLR
    participant GCR

    MS-1->>BSC-1: 1. Call Setup
    BSC-1->>WCS-1: 2. Start DTMF
    WCS-1->>MG1: 
    MG1->>MG2: 
    MG2->>WCS-2: 3. Modify Connect
    WCS-2->>MG2: 4. Modify Connect ACK
    Note over BSC-1, WCS-1, MG1, MG2, WCS-2: 5. Talk control for GPRS session now available to all participants in the call
    WCS-2->>BSC-2: 1. Start DTMF
    BSC-2->>WCS-1: 2. Start DTMF
    WCS-1->>MG2: 3. Modify Connect
    MG2->>WCS-2: 4. Modify Connect ACK
    MG2->>WCS-2: 5. Play Tone
    WCS-2->>MG2: (Success to MS-B)
    MG2-->>MS-2: 6. Success tone played in-band
    MG2->>WCS-2: 7. Play Tone ACK
    Note over BSC-1, WCS-1, MG1, MG2, WCS-2: 8. GPRS Session in progress (MS-2 has the talk control)
  
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The diagram illustrates the sequence of events for a GPRS call flow. It involves several entities: MS-1, BSC-1, WCS-1, MG1, MG2, WCS-2, BSC-2, MS-2, HLR, and GCR. The process begins with MS-1 initiating a call setup to BSC-1. BSC-1 then sends a '2. Start DTMF' message to WCS-1. WCS-1 forwards this to MG1, which then forwards it to MG2. MG2 sends a '3. Modify Connect' message to WCS-2, which responds with a '4. Modify Connect ACK'. A large arrow indicates that '5. Talk control for GPRS session now available to all participants in the call'. Following this, WCS-2 sends a '1. Start DTMF' message to BSC-2, which then sends a '2. Start DTMF' message to WCS-1. WCS-1 sends a '3. Modify Connect' message to MG2, which responds with a '4. Modify Connect ACK'. MG2 then sends a '5. Play Tone' message to WCS-2, which responds with '(Success to MS-B)'. MG2 then sends a '6. Success tone played in-band' message to MS-2. Finally, MG2 sends a '7. Play Tone ACK' message to WCS-2. A large arrow at the bottom indicates that '8. GPRS Session in progress (MS-2 has the talk control)'.

FIG. 11

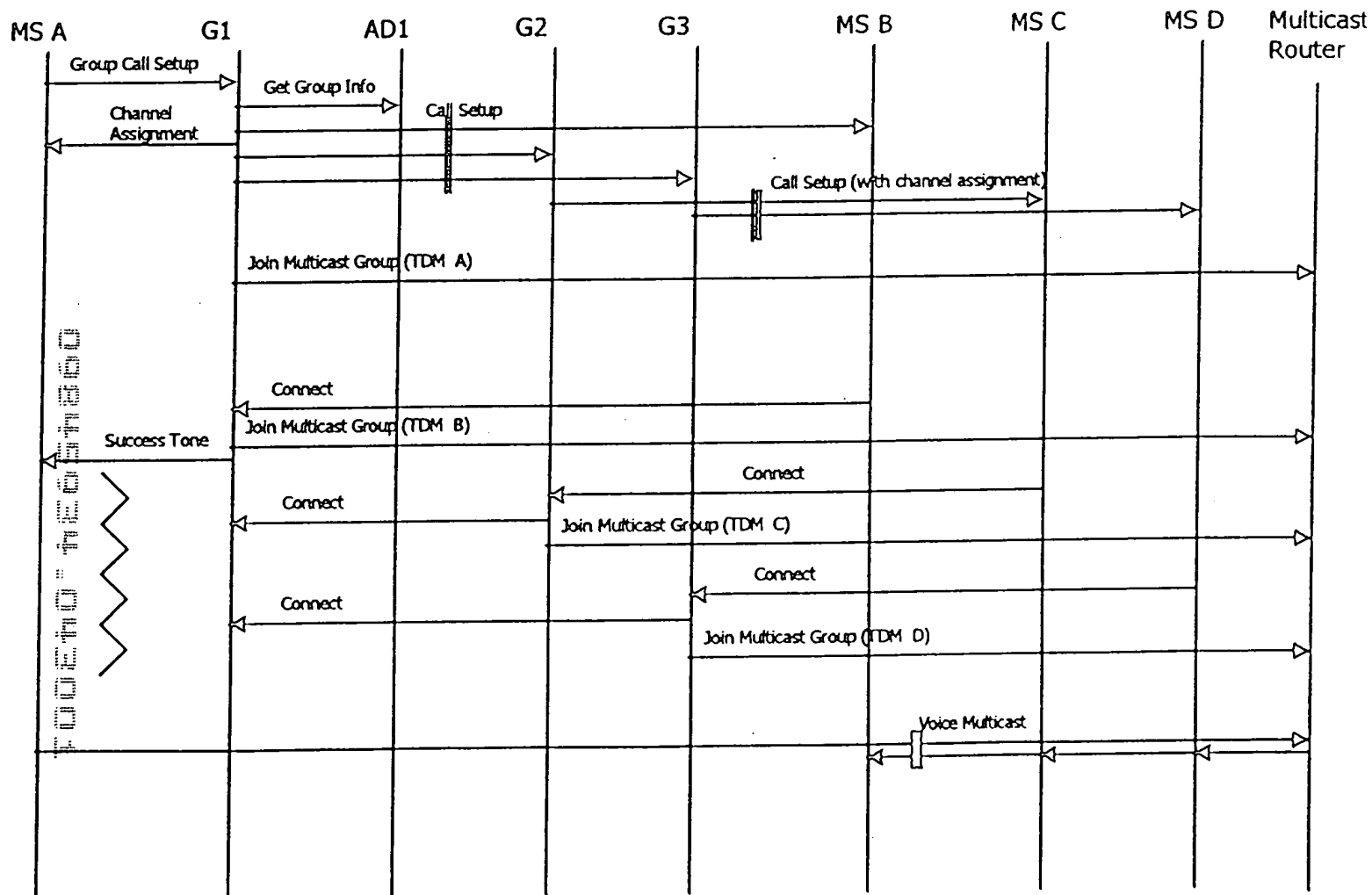


FIG. 12

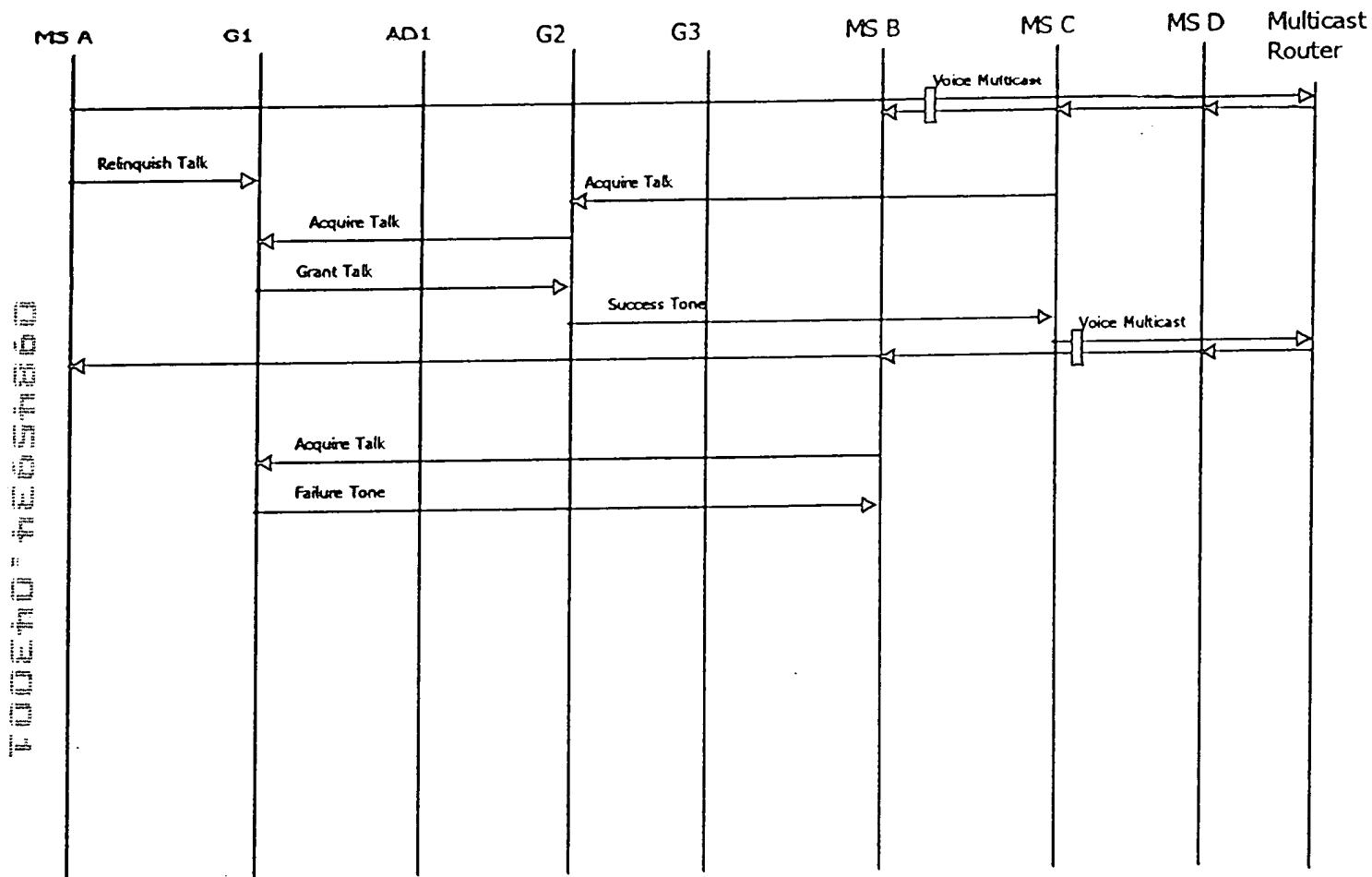


FIG. 13

FIG. 14

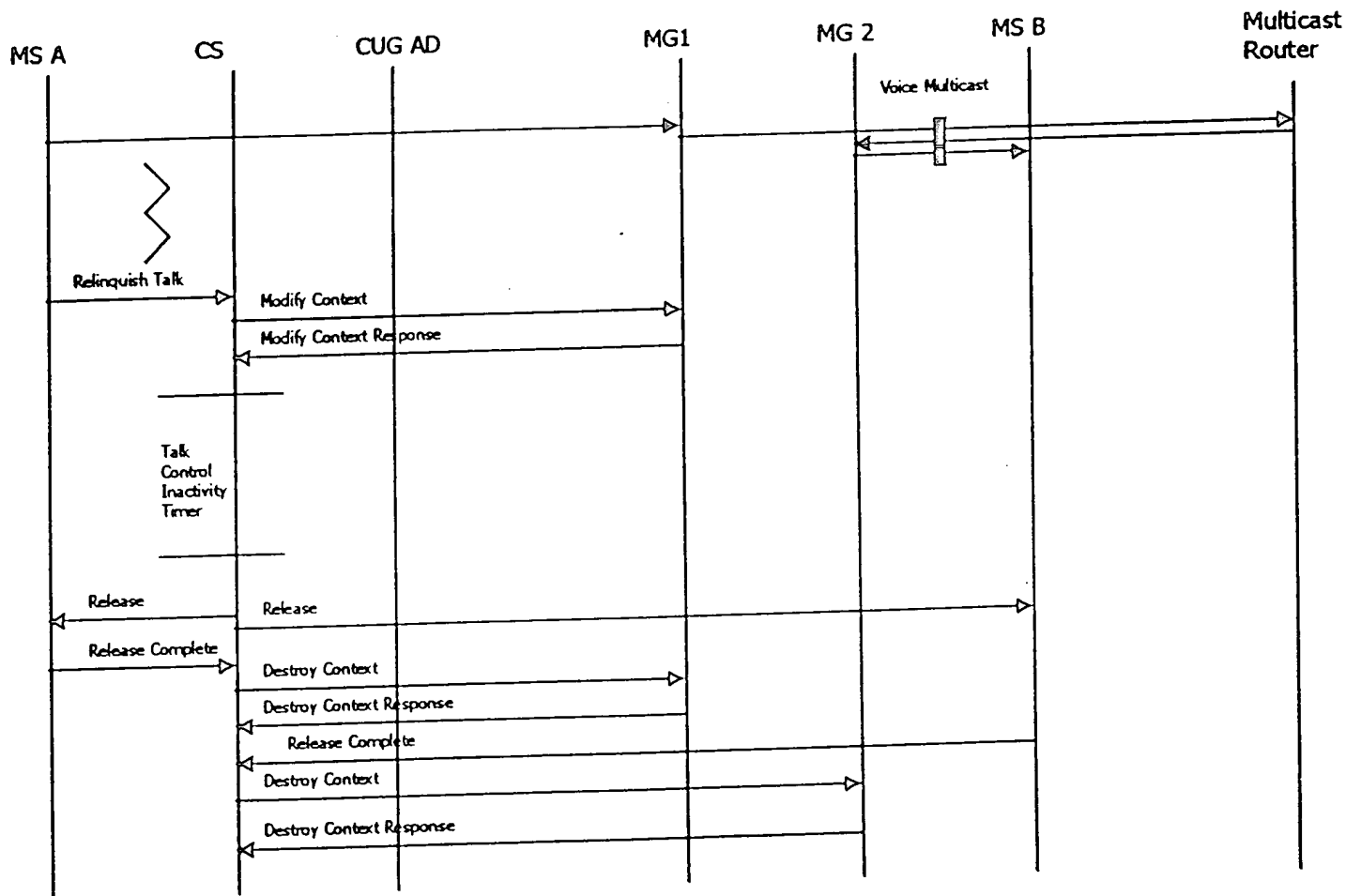


FIG. 14

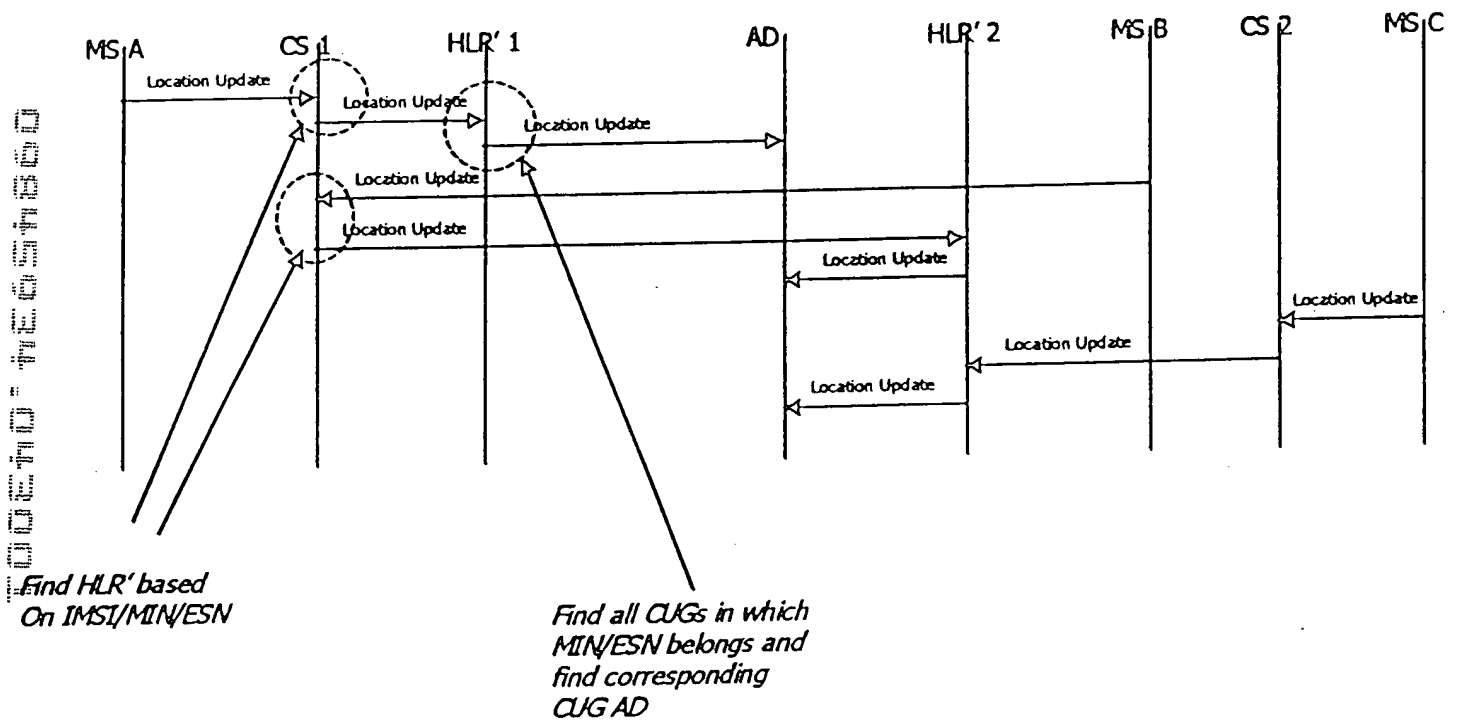


FIG. 15

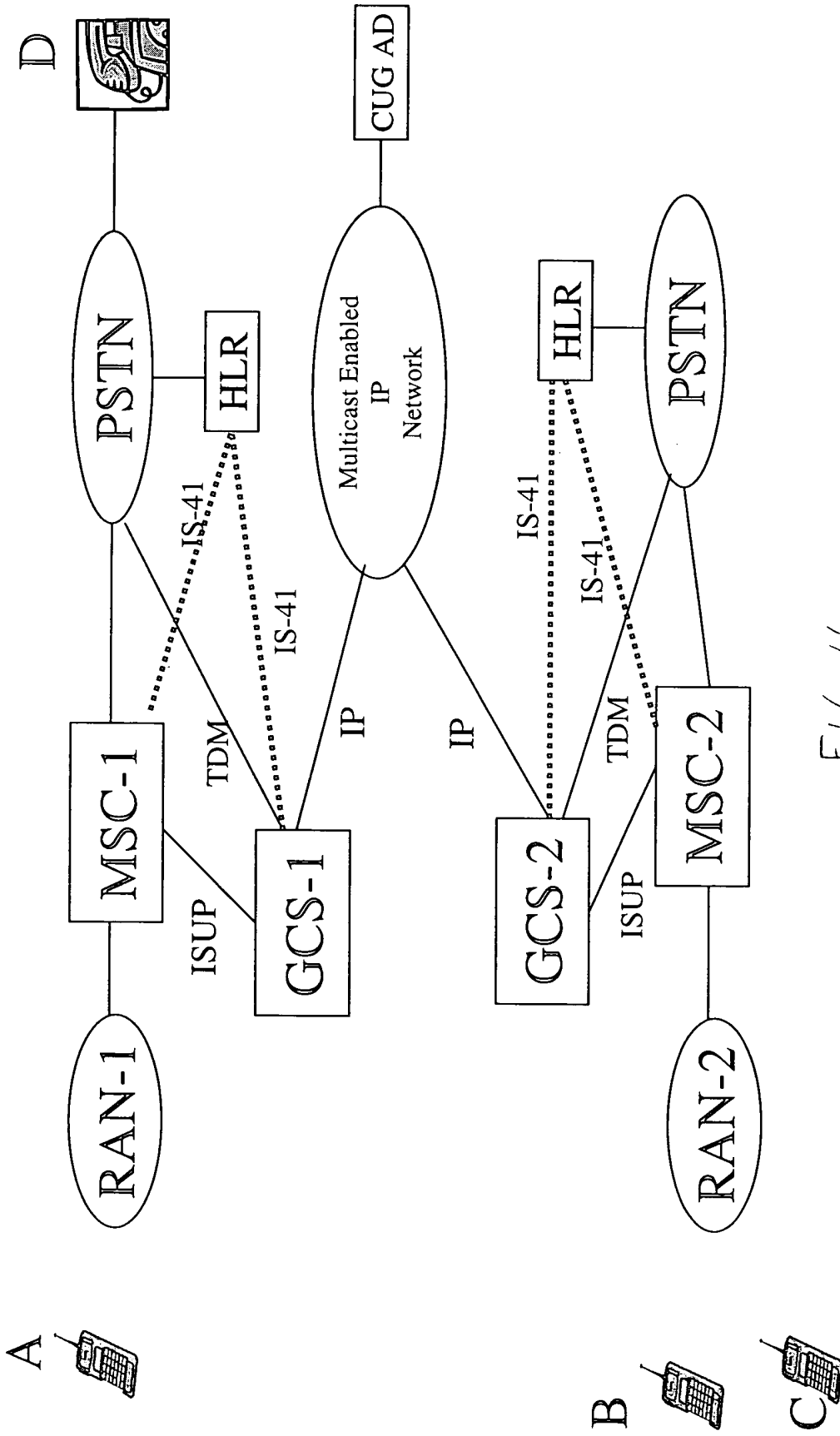


FIG. 16

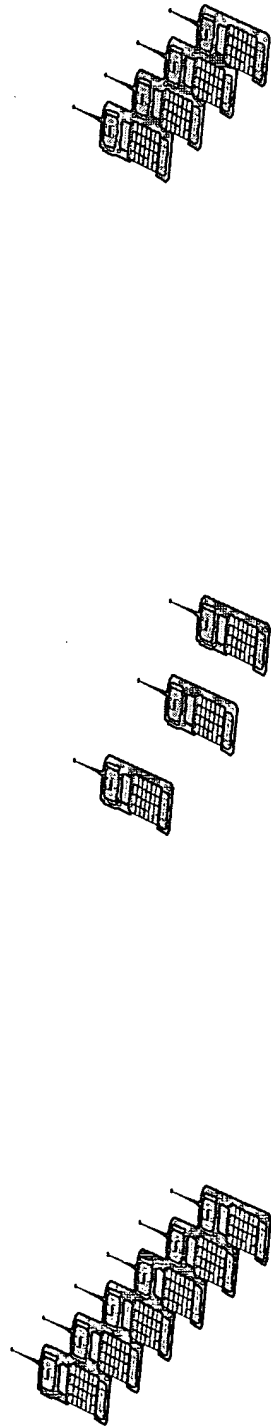
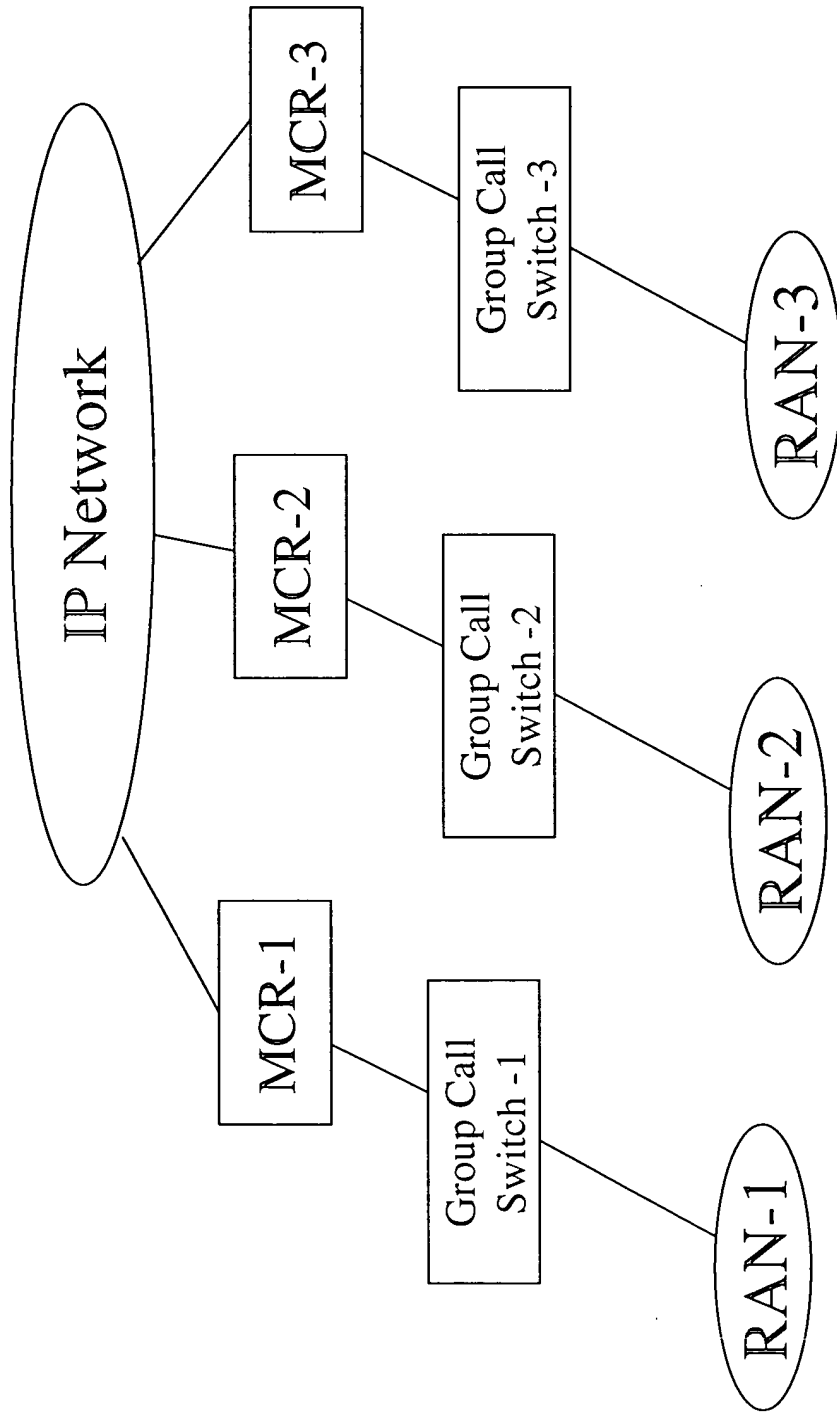


FIG. 17